State of Washington
DEPARTMENT OF FISH AND WILDLIFE
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RESPONSE TO COMMENTS RECEIVED ON "YAKIMA RIVER EDGE STRUCTURES PROJECT" PROPOSED BY THE YAKAMA NATION
DATE ISSUED: September 18, 2014 - DATE FINAL: November 20, 2014
SEPA NUMBER: DNS 14-067

November 20, 2014

Dear Commenter,

Thank you for providing review and comment on the Determination of Non-significance (DNS) on the Yakama Nation's "Edge Habitat Restoration Project" The following are WDFW responses to comments received during the comment period on the determination of non-significance (DNS) for the "Edge Project".

Project Design: The Edge Project design originally contemplated installation of 37 Large Wood Placement (LWP) structures. In response to comments received, the number of structures was reduced to 32 by the project proponent. These engineered structures were designed by Natural Systems Design (NSD), a restoration consulting firm of 14 scientists and engineers with collective experience of over 55 years. Over the last 12 years the NSD team has completed more than a hundred design/build LWP projects in the Pacific Northwest including many projects in Washington State. Many of these have been built in popular recreational boating areas. None of the structures have resulted in injuries or fatalities during the 12-year period. Principle engineers at NSD have published peer-reviewed papers in river science and restoration, have been called as expert witnesses in fluvial geomorphology and are lead authors in federal guidelines on the use of wood in river restoration.

The proposed designs are conservative in size and orientation. Three types of structures are proposed. Two designs will occupy 15feet or less channel width. The third design will occupy 75 feet in width, but only one of these is proposed, which will be built in a backwater area of low velocity and in shallow water. The river channel is a minimum of 170' in width during base flow conditions. All but one of the proposed structures will occupy less than 10 percent of the stream's width. Further, there is at least 500' of site distance upstream of these structures.

Until an access and restoration agreement is reached between Washington State Parks and the Yakama Nation restoration work will be limited to the north side of the Yakima River from Bonneville Power Administration owned lands.

In water work will be limited to vertical placement of trees/logs with attached rootwads using full suspension and/or using a vibratory excavator attachment to drive pile anchors. The project site will be inspected by Yakama Nation biologists to prevent work from adversely impacting

any incubating chinook or coho redds. Excavation outside of the wetted perimeter will occur at some locations within the floodplain on dry gravel bars. If groundwater is encountered such that it poses a risk of contaminating surface water with sediment, the wastewater will be routed or pumped to an upland settling area.

Wood Mobilization Concerns:
Anchoring the structures will involve driving large wooden pilings up to 12 feet into the stream substrate, or to refusal, which is below the scour depth in this portion of the Yakima River. Wood complexes will be incorporated into the pilings in configurations that will remain stable during expected high flows. Driven pile is a reasonable and proven method for anchoring wood in large streams.

Project Location: This reach of the river is appropriate for this project as it is determined to be deficient in wood loading and stable. The river channel is horizontally stable as corroborated by aerial photographs provided to us by the Yakama Nation which span the last 60 years. Risk of these small habitat structures contributing to a channel avulsion is extremely low, because this reach has not migrated appreciably over this 60-year time frame and the project proposal is very small compared to the cross-sectional area of the channel.

Potential for Structures to Entrain Additional Woody Material: The structures could capture naturally-recruited material from upstream in the future. That large wood structures material will be monitored and evaluated after high flow events and periodically for potential risk to boaters, and follow up measures will be taken if deemed appropriate. However, naturally recruited material will rack somewhere within the stream. Even if these habitat structures were not built, the naturally recruited wood would be deposited somewhere within the river channel and those locations could also pose boating hazards. We respectfully disagree with the contention that if natural wood deposits on one of these structures, that it would result in a greater boating hazard than would otherwise occur naturally.

Potential to Affect Navigation: In response to early concerns and comment, the project footprint has been reduced by the Yakama Nation, by elimination of a structure where the thalweg is within 25 feet of the stream bank. For the remainder of the project area, up and downstream stream navigation will be unaffected by these structures, as the river is wide, open, and relatively straight with good visibility.

Concerns were received regarding the potential for this project to restrict navigability for rescue craft at low flows. Based upon this input, the project footprint was scaled back by the project applicant to avoid areas where the low flow thalweg (the main “thread” of flow) is close to the shore of the river, at the downstream end of the project. One proposed site on a mid-channel bar that had been proposed for a large structure has been eliminated from the project proposal.

The Washington Department of Natural Resources (WDNR) owns/manages the land where the structures are to be installed, and their personnel have also reviewed and approved the project designs. In addition, the Yakama Nation submitted a public safety checklist to the DNR for

disclosure and review of potential public safety issues presented by the project. Design, location, channel morphology and site distance are all acceptable for this restoration project.

Potential to adversely affect condition or usage of the John Wayne Pioneer Trail:

The Yakama Nation will not begin work on the south side of the Yakima River prior to final approval/authorization from Washington State Parks. Final details regarding use, access, and restoration of the John Wayne Pioneer Trail will occur prior to beginning this portion of the project. Until access approval is secured, the "Edge Restoration Project" work will be limited to the left bank of the Yakima River with access occurring across Bonneville Power Administration owned lands.

Washington State Parks posed questions about timing, scale, and season of construction. The project will occur between September and May during periods of low flow. While there is the potential for high flows to occur, stream flow is generally lower within this stream reach than in summer months when irrigation water is being released from storage reservoirs. A total of 37 structures were initially proposed, but the actual number constructed has been reduced to 32 in response to SEPA comments. Up to twenty loaded log trucks will be required to travel upon the John Wayne Pioneer Trail to deliver habitat material. A maximum of ten trips per day will occur for the duration of the construction period, estimated at three weeks or less. One 300-class excavator is needed to construct the structures. This machine will need to either travel on the trail, or be delivered to the site via low-boy trailer. After the structures are installed, future maintenance, if necessary, will be done with hand tools including chainsaws and grip hoists, and will not require heavy equipment. Vehicle speed on the trail will be limited to 25mph. All construction vehicles and other equipment will be properly signed by the contractor. When logs are delivered, construction personnel wearing high-visibility orange vests and hard hats will be posted at both ends of the construction site to notify trail users, and lead them through the construction site as necessary. Upon arrival in the vicinity of the construction site, trucked logs will be picked up by the excavator, and the boom will swing the logs toward the individual placement locations. The excavator will then move to a location closer to the construction area, and continue swinging the logs as needed to bring them to the construction site.

The excavator will travel in straight lines and minimize turning of the drive mechanisms to the extent practical in order to minimize soil displacement. Dragging logs on the ground will be minimized to the extent practical, and will be carried using full suspension. These areas are not expected to look like roads because travel will only be via excavator, and the number of total trips to each construction site will be less than ten. However, some ground disturbance is inherent in this activity. Riparian vegetation will be altered and scared when walking over them with the excavator, but they will not be cut or grubbed. The dogwood, willow, alder, rose, hawthorne, chokecherry, and bitter cherry that dominate the shrub layer are expected to quickly resprout in the next growing season. Access routes from the trail will be selected to avoid damage to large trees, but there is a remote possibility that up to three trees greater than 10" diameter at breast height will be removed from the trail ROW to provide access to the Yakima

River. At these locations and in areas that do not naturally recolonize, locally gathered riparian trees and shrubs will be installed in order to restore riparian vigor.

The excavator will be staged along a wide spot adjacent to the trail as approved by parks personnel. Proper spill control and containment equipment as recommended by Washington Department of Ecology staff will be onsite at all times.

Following construction, disturbed soils will be raked and resloped by labor crews, and reseeded with native seed mix where appropriate. A straw mulch will be applied to provide temporary erosion control until vegetation is established. The site will be monitored for noxious weeds and control measures will be taken as appropriate. The county weed board will be consulted if needed. Weed control, if necessary, will occur through a contract with a local vegetation management firm, similar to the project already in place for weed management at the Cle Elum hatchery and at other habitat properties in the vicinity.

Expected interruptions along the trail are as follows:

- Delivery of the excavator will take one hour or less,
- Delivery and off-loading of logs will take up to two hours per delivery,
- Refueling the excavator will take up to one hour per day,
- Reloading and demobilizing the excavator will take 1-2 hours.

Upon completion of the project, a labor crew will be utilized to rake the disturbed areas and pick up accumulated wood material from log handling. Additional gravel will be placed upon the trail surface at disturbed locations as deemed appropriate, in order to restore the trail to pre-project or better condition.

Dust abatement along the trail and at the train depot in South Cle Elum is likely to be unnecessary because the project will occur between November and May. However, if weather dictates, water will be applied to the trail near the depot to reduce impacts to air quality.

Snow removal for construction or delivery of logs may be required, but the project duration will be short (less than one month), thus project planners expect that the winter season will be avoided. However, if snowfall occurs, the project manager and contractor will work with state park personnel to determine the best method for snow removal, and locations for deposited snow.

Mitigation Measures: The following mitigation measures were incorporated into the DNS SEPA determination in response to comments received.

Project Design and Location:

- The total number of habitat structures constructed was reduced from 37, to 32 or less.
- The number of "Type 2" habitat structures that will be constructed will be reduced to one.
- The locations for the "Type 1" habitat structures were reduced to avoid an area where the low flow navigation channel is within 25 feet of the shoreline. A revised project location map was provided by the project proponent.

- The project will adhere to conditions required by Washington Department of Natural Resources in response to the boater safety checklist process.
- In water work will be limited to vertical placement of trees/logs with attached rootwads using full suspension and/or using a vibratory excavator attachment to drive pile anchors.
- The project site will be inspected by Yakama Nation biologists to prevent work from adversely impacting any incubating chinook or coho redds.
- Excavation outside of the wetted perimeter will occur at some locations within the floodplain on dry gravel bars. If groundwater is encountered during excavation on gravel bars such that it poses a risk of contaminating surface water with sediment, the wastewater will be routed or pumped to an upland settling area.
- A Hydraulic Project Approval is required by WDFW prior to beginning work.

Impacts to State Parks Land:
Note: Work involving accessing the Yakima River across Washington State Parks land will not occur prior to an access and mitigation agreement between the Yakama Nation and Washington State Parks.

- The project is limited to a maximum of twenty total trips by a log truck on State Parks land to deliver material.
- The project shall be limited to a maximum of ten trips by a log truck on State Parks land to deliver material per day.
- The project shall be limited to up to 15 days over the course of up to two calendar years for restoration activities involving use of State Parks land.
- Heavy equipment will only transport machinery or materials on State Parks land between the hours of 5am and 4pm, Monday-Friday.
- Servicing equipment and handling woody material on State Parks land will occur between 5am and 4pm.
- Impacts to riparian habitat on State Parks land shall be limited as much as practical. All areas larger than three square feet that have not regained riparian growth after one growing season shall be replanted with riparian shrubs and trees that are native to the ecoregion. Density of replanting shall be at one bare root or potted plant per nine square feet.
- Weed control on State Parks land shall occur as necessary to ensure reestablishment of native riparian plants.
- Dust abatement at the South Cle Elum depot and on State Parks land will occur if weather dictates.
- Snow removal on State Parks land will occur if needed, and will be coordinated with State Parks staff.

Position/Title: Perry Harvester, WDFW Regional Habitat Program Manager

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Date: November 20, 2014 **Signature:**